

IN THE CLAIMS

1. (Currently Amended) A multi-view image generation unit (100, 200) for generating a multi-view image on basis of an input image, the generation unit comprising:

edge detection means (102) for detecting an edge in the input image;

depth map generation means (104) for generating a depth map for the input image on basis of the edge, **by generating**

_____ a first group of elements of the depth map corresponding to the edge having a first depth value, related to a viewer of the multi-view image, ~~and~~

a second group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge **on a first side**, having a second depth value, related to the viewer of the multi-view image, **and**

a third group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a second side, having a third depth value, related to the viewer of the multi-view image,

_____ **wherein** the first value ~~is~~**being** less than the second value; and

rendering means (106) for rendering the multi-view image using the input image and the depth map ~~corresponding to the two depth values~~.

2. (Previously Presented) A multi-view image generation unit (100) as claimed in claim 1, wherein the edge detection means (102) is arranged to detect the edge by computing pixel value differences between first pixel values of the input image and respective second pixel values of a second input image, the input image and the second input image belonging to a sequence of video images.

3. (Original) A multi-view image generation unit (100) as claimed in claim 2, wherein the first pixel values represent one of color and luminance.

4. (Original) A multi-view image generation unit (100) as claimed in claim 2, wherein the first depth value is a function of a first one of the pixel value differences.

5. (Cancel).
6. (Cancel).
7. (Cancel).

8. (Currently Amended) An image processing apparatus (600) comprising:

- receiving means (602) for receiving a signal corresponding to an input image; and
- a multi-view image generation unit (604) for generating a multi-view image on basis of the input image, having
 - edge detection means (102) for detecting an edge in the input image;
 - depth map generation means (104) for generating a depth map for the input image on basis of the edge, **by generating**
 - _____ a first group of elements of the depth map corresponding to the edge having a first depth value, related to a viewer of the multi-view image, **and**
 - a second group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge **on a first side**, having a second depth value, related to the viewer of the multi-view image, **and**
 - a third group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a second side, having a third depth value, related to the viewer of the multi-view image,**
 - wherein** the first value ~~is~~**being** less than the second value; and
 - rendering means (106) for rendering the multi-view image using the input image and the depth map ~~corresponding to the two depth values.~~

9. (Original) An image processing apparatus (600) as claimed in claim 8, further comprising a multi-view display device (606) for displaying the multi-view image.

10. (Currently Amended) A method of generating a multi-view image on basis of an input image, the method comprising:

- detecting an edge in the input image;
generating a depth map for the input image on basis of the edge, by generating
_____ a first group of elements of the depth map corresponding to the edge having a first depth value, related to a viewer of the multi-view image, and
_____ a second group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a first side, having a second depth value, related to the viewer of the multi-view image, and
_____ a third group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a second side, having a third depth value, related to the viewer of the multi-view image,
_____ wherein the first value ~~is~~being less than the second value; and
rendering the multi-view image using the input image and the depth map ~~corresponding to the two depth values.~~

11. (Currently Amended) A computer readable storage medium comprising instructions executable by a processor to generate a multi-view image on basis of an input image, the medium comprising:

- code for detecting an edge in the input image;
code for generating a depth map for the input image on basis of the edge, by generating
_____ a first group of elements of the depth map corresponding to the edge having a first depth value, related to a viewer of the multi-view image, and
_____ a second group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a first side, having a second depth value, related to the viewer of the multi-view image, and
_____ a third group of elements of the depth map corresponding to a region of the input image, being located adjacent to the edge on a second side, having a third depth value, related to the viewer of the multi-view image,

wherein the first value is being less than the second value; and
code for rendering the multi-view image using the input image and the
depth map corresponding to the two depth values.